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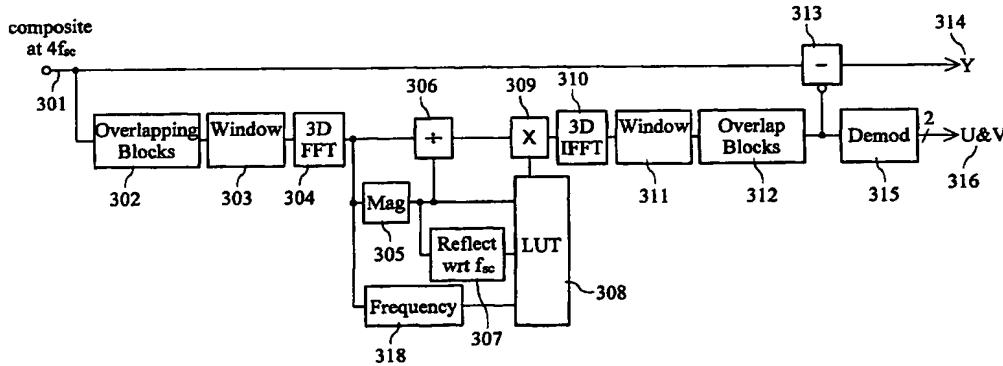
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(54) Title: IMPROVED COMPOSITE DECODING



(57) Abstract: A method of composite decoding in which the input signal is converted into the frequency domain, and the symmetry of frequency components with respect to the subcarrier frequency is compared. The comparison is varied in dependence upon the frequency being processed. In this way, the separation can be adapted to suit known characteristics of different portions on the input spectrum. This is particularly useful for processing NTSC signals. The allocation of a particular component to chrominance may be biased in dependence upon a measure of the luminance information of the composite signal at a corresponding spatial frequency.

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# INTERNATIONAL SEARCH REPORT

PCT/GB 03/05690

**A. CLASSIFICATION OF SUBJECT MATTER**  
IPC 7 H04N9/78

According to International Patent Classification (IPC) or to both national classification and IPC

**B. FIELDS SEARCHED**

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 H04N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, PAJ, WPI Data

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 1 175 102 A (BRITISH BROADCASTING CORP) 23 January 2002 (2002-01-23) cited in the application whole document -----	1-5, 24, 25
A	WO 02/37420 A (CLAYTON JOHN CHRISTOPHER) 10 May 2002 (2002-05-10) page 47, line 19 – line 36 page 40, line 19 – line 26 page 11, line 16 – page 13, line 8 -----	12, 26
		1, 12, 24, 26

Further documents are listed in the continuation of box C.

Patent family members are listed in annex.

° Special categories of cited documents :

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- "T" later document published after the International filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
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- "&" document member of the same patent family

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## INTERNATIONAL SEARCH REPORT

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Patent document cited in search report		Publication date		Patent family member(s)		Publication date
EP 1175102	A	23-01-2002	EP GB	1175102 A2 2365247 A		23-01-2002 13-02-2002
WO 0237420	A	10-05-2002	AU CA EP WO GB JP US	1249702 A 2427631 A1 1332471 A2 0237420 A2 2370937 A 2004513546 T 2004017507 A1		15-05-2002 10-05-2002 06-08-2003 10-05-2002 10-07-2002 30-04-2004 29-01-2004